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distance as the semiconductor member peripheral portions.

8. (amended) The vacuum plasma processor of claim 7 wherein the non-magnetic metal arrangement includes first and second members respectively abutting and spaced from the semiconductor member, the first and second non-magnetic metal members having approximately aligned peripheries, each of the first and second non-magnetic metal members having a periphery outside the periphery of the semiconductor member to such an extent that the first and second non-magnetic members do not prevent the electric and magnetic field components from the coil from being incident on the plasma.

29. (amended) The vacuum plasma processor of claim 28 wherein the non-magnetic metal member is adjacent the semiconductor member and the second diameter is greater than the third diameter.

30. (amended) The vacuum plasma processor of claim 28 wherein the non-magnetic metal member is adjacent the coil and has a diameter less than the interior diameter of the coil innermost turn.

31. (amended) The vacuum plasma processor of claim 28 wherein the non-magnetic metal arrangement includes first and

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second circular members co-axial with the chamber interior wall, the first circular member being adjacent the semiconductor member and the second diameter is greater than the third diameter, the second circular member being adjacent the coil and has a diameter less than the interior diameter of the coil innermost turn.